Remarks

Claims 1-8 and 10-20 are pending. By this Amendment, claim 9 has been cancelled and claim 20 has been added. No new matter is believed added.

Claims 5-9 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter. Accordingly, Applicants have added new independent claim 20 corresponding to objected claim 9, now cancelled.

Claims 1-4, 10-12 and 17-18 are rejected under 35 U.S.C. 102(e) over Jiang et al. (US 2003/0145178), hereafter "Jiang." This rejection is defective because Jiang fails to disclose each and every feature of the claims as required by 35 U.S.C. 102(e).

Independent claim 1 recites:

"An apparatus for reading out multiple match hits from a content addressable memory (CAM), comprising:

a priority encoder for receiving a plurality of matchlines from a CAM and for sequentially encoding

addresses of the CAM that are associated with the matchlines that indicate a match; and

a matchline mask system for selectively masking off a matchline that indicates a match from the priority encoder after the address associated with that matchline is encoded by the priority encoder."

Jiang fails to disclose, among other features, the claimed priority encoder "for receiving a plurality of matchlines from a CAM and for **sequentially encoding addresses of the CAM that are associated with the matchlines that indicate a match**." The Examiner alleges that Jiang discloses a priority encoder (FIG. 1) for "receiving a plurality of match lines from a CAM (ML) and for sequentially encoding addresses (Column 1, paragraph 0013) of the CAM that are associated with the matchlines that indicate a match (MA)." This is incorrect. On the contrary, Jiang discloses that the priority encoder outputs a single match address (MA) corresponding to the "enabled match line having the **highest priority**" (paragraph [0007]). Jiang does not disclose encoding (e.g., sequentially encoding) the match addresses corresponding to any of the lower priority match lines that indicate a match hit. Jiang is only concerned with

the match address corresponding to the highest priority match line, and whether or not multiple match hits have occurred. Jiang does not disclose how the additional matches on the lower priority match lines are handled.

The Examiner also equates the claimed "matchline mask system" with Jiang's "final unit" (FIG. 4). Again, this is incorrect. In particular, the "final MHIT" (OR gate) in FIG. 4 of Jiang simply provides a "final multiple hit detection result" (paragraph [0031]), based on the outputs of the priority encoders (PE). The "final MHIT" (OR gate) of Jiang does not provide any masking function as alleged by the Examiner, nor does the "final MHIT" (OR gate) of Jiang selectively mask "off a matchline that indicates a match from the priority encoder after the address associated with that matchline is encoded by the priority encoder" as claimed.
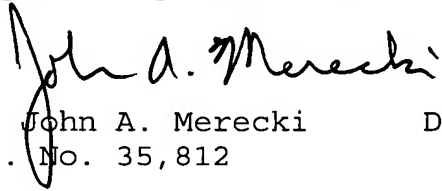
Independent claims 11 and 17 are allowable for at least the reasons set forth above with regard to independent claim 1.

Accordingly, since Jiang fails to disclose each and every claim feature, Applicants submit that claims 1-8 and 10-20 are allowable.

If the Examiner believes that any further discussion

of the invention would be helpful, perhaps in the form of an Examiner's Amendment, Applicants' representative is available at (518) 449-0044, and earnestly solicits such discussion.

Respectfully submitted,

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